

Before the
Federal Communications Commission
Washington D.C. 20554

In the Matter of)	
)	
Appropriate Framework for Broadband Access)	CC Dockets No. 02-33; 95-20,
To the Internet Over Wireline Facilities)	98-10
)	
)	

Comments of the Rehabilitation Engineering Research Center
on Telecommunications Access

Karen Peltz Strauss, Policy Consultant
Gregg C. Vanderheiden, Co-Principal Investigator
Judith E. Harkins, Co-Principal Investigator

RERC on Telecommunications Access
C/o Gallaudet University
800 Florida Avenue, NE
Washington, DC 20002

May 3, 2002

Summary

The increased deployment and availability of broadband services will bring enormous benefits to all Americans. For people with disabilities, broadband offers a plethora of new opportunities to communicate effectively. Among other things, broadband can facilitate communication via sign language over video, via two way text communications, and via IP relay services for individuals who are deaf or hard of hearing. In addition, the Internet often offers the only means of delivering print information in accessible formats for individuals who are blind and visually impaired. But individuals with disabilities can only benefit from new broadband services if safeguards exist to ensure that accessibility features are built into those services. Unfortunately, some accessibility problems already exist with respect to several broadband services. For example, it is not uncommon for TTY text that is transmitted over IP telephony to be garbled at the receiving end or for graphical interfaces on IP telephony to create barriers for screen readers used by persons who are blind. The Commission has the authority and the responsibility to require solutions to these and other problems that could create accessibility barriers for people with disabilities.

The classification of wireline broadband Internet access service should turn on both its functionalities and the nature of its underlying transmissions but not on the technology used. In the case of IP telephony and instant messaging, broadband services are simply substituting a newer technology – a digital technology – for an older one – narrowband telephone service. Both technologies use a “dumb” pipeline; both technologies permit the carriage of communications from one end user to another

without, in any way, changing the content or form of the communication conveyed. When Congress enacted Section 255, it did not direct the Commission to distinguish among communications that would take place using speech, text, video or other modalities. Accordingly, broadband services that carry such communications from end to end without change in content or form are telecommunications services within the scope of Section 255.

To the extent that some information services provided over broadband pipelines are not telecommunications services, the Commission should nevertheless ensure the accessibility of those services through its ancillary jurisdiction under Title I. Use of the Commission's general authority to act in the public interest is warranted in this case in order to further the Commission's goals to facilitate the availability of broadband to all Americans and to uphold our nation's policies to safeguard the accessibility interests of people with disabilities.

History has shown that competitive market forces will not, on their own, provide the safeguards needed to ensure access by individuals with disabilities. Market failures in the past have prompted both Congress and the Commission, on multiple occasions, to take legislative and regulatory action to ensure that people with disabilities would not be left behind as the rest of our nation moves forward with new and innovative methods of communication.

Individuals with disabilities should not be penalized as we move from outdated to modern telecommunications technologies just because these newer technologies have other, more versatile uses. But the time to ensure such access is now. Accessibility measures are more likely to be readily achievable if they are adopted as new broadband

access services are designed and developed, rather than later on, when expensive and burdensome retrofits will be needed.

Finally, as traditional services migrate to broadband platforms, the Commission should ensure that funding mechanisms are in place to sustain both its universal service programs and our nation's telecommunications relay service programs.

TABLE OF CONTENTS

I. Introduction.....	1
II. Certain Broadband Services Should Be Classified as Telecommunications Services Because of their Functional Nature.....	2
III. The Commission Has Authority Under Title I to Ensure that People with Disabilities Have Access to Broadband Access Services.....	
IV. Market Forces are Insufficient to Protect Disability Interests.....	
V. Accessibility Issues Already Exist with Respect to Broadband Technologies.....	
VI. Broadband Services Offer Significant Advantages for People with Disabilities.....	
VII. Broadband Access Service Providers Should Comply with the Accessibility Requirements of Section 251.....	
VIII. Contributions for Universal Service and Telecommunications Relay Services Need to be Supported.....	
IX. Conclusion	

Before the
Federal Communications Commission
Washington D.C. 20554

In the Matter of)
)
Appropriate Framework for Broadband Access) CC Dockets No. 02-33; 95-20,
To the Internet Over Wireline Facilities) 98-10
)
)

Comments of the Rehabilitation Engineering Research Center
on Telecommunications Access

I. Introduction

The Rehabilitation Engineering Research Center on Telecommunications Access (RERC-TA) submits these comments in response to the Federal Communications Commission's (FCC or Commission) Notice of Proposed Rulemaking (NPRM) on how to classify broadband services that are provided through the traditional telephone infrastructure.¹

The RERC-TA is a joint project of Gallaudet University and the Trace Center of the University of Wisconsin, Madison. The primary mission of the RERC-TA is to find ways to make standard systems directly usable by people with all types and degrees of disability, and to work with industry and government to put access strategies into place. The RERC-TA has previously submitted comments to the Commission on broadband issues both in response to the Commission's Section 706 inquiry concerning the deployment of advanced telecommunications capability to all Americans, and in response to the Commission's inquiry on the application of

¹ *In the Matter of Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Notice of Proposed Rulemaking*, CC Dkts 02-33; 95-20; 98-10, FCC 02-42 (rel. Feb. 15, 2002)

Section 255 to IP telephony. The RERC-TA project is funded by the National Institute on Disability and Rehabilitation Research of the U.S. Department of Education.

II. Certain Broadband Services Should Be Classified as Telecommunications Services Because of their Functional Nature

In its NPRM, the Commission tentatively concludes that under the Telecommunications Act, the provision of wireline broadband Internet access service is an information service, whether or not the entity that is providing that service is doing so over its own transmission facilities. In addition, the Commission tentatively concludes that the transmission component of wireline broadband Internet service provided over an entity's own facilities is "telecommunications" and not a "telecommunications service." The Commission explains that because wireline broadband Internet access services offer end-users the "capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information," the act of delivering these services – even when they are delivered over a wireline telecommunications provider's own facilities – is the act of using (not providing) telecommunications to provide an information service. An entity provides telecommunications, the Commission explains, only when it provides a transparent path and does not change the form or content of information.

The RERC-TA is concerned that the classification of wireline broadband Internet access service in this manner both seems inconsistent and may result in eliminating protections for people with disabilities under Section 255 of the Communications Act.² Because Section 255 covers telecommunications services and not information services, a classification that pulls the transmission component out from under the coverage of this

² 47 U.S.C. §255.

law could have adverse and unintended consequences for the disability community. The RERC-TA submits that the definition of what constitutes a telecommunications service versus an information service should not turn on the mere *ability* of that service to provide a variety of applications, some of which may be information services. Rather, the RERC-TA believes that the classification of wireline broadband Internet access service should turn on the functionalities of that service for its end users. Where such functions parallel traditional telecommunications services, the broadband access services supporting such functions should be classified as telecommunications services.

Where a broadband access service is used for the carriage of communications between and among individuals and this service does not generate, process or in any way transform information for its end users, the broadband service providing this function should be classified as a telecommunications service. In this situation, the Internet is merely serving as a pure transmission service or a pipeline, delivering packets of information without any processing that changes form or content between computers. Under this analysis, certain broadband services – including IP telephony, and instant messaging – should be classified as telecommunications services.

Under the Telecommunications Act’s definition of “telecommunications,” “an entity *provides* telecommunications only when it both provides a transparent transmission path *and* it does not change the form or content of the information. If this offering is made directly to the public for a fee, it is deemed a ‘telecommunications service.’”³ When conversations take place via IP telephony or instant messaging over wireline facilities, the content and form of those conversations remain identical between the end

³ NPRM at ¶19.

users of these services – i.e., the information shared is not changed in any way between the time that messages are sent by the initiating or “calling” party and the time that they are received by the recipient. This remains true regardless of how such conversations take place – via voice, text (TTY or computer generated), or video. Indeed, the only functional difference between these conversations and voice communications that take place over the traditional telephone infrastructure is that they offer users the opportunity to communicate in a form that best meets their access needs, whether that be voice, text or video.

The definition of telecommunications services has never been limited to conversations using voice. Conversations among persons who are deaf have taken place via TTYs since the 1960s; coverage of this type of text communication under Title II has never been put into question. In fact, most recently, the Commission specifically determined that a form of IP telecommunications is covered by the Communications Act under Title II. Specifically, the Commission adopted an Order defining IP relay as a form of telecommunications relay service under its Title II relay rules.⁴ Moreover, when Congress enacted Section 255, it did not direct the Commission to distinguish among conversations that would take place using speech text, video or other modalities. Rather, it was the intent of the Legislature that individuals with disabilities not be left behind as the rest of the nation came to benefit from new and innovative methods of achieving communications.

We suggest that where broadband access service is used to achieve the very same communications that were traditionally achieved via traditional wireline services, it should be classified as a telecommunications service that is covered by Section 255,

regardless of the form (text, video, or voice) that those communications take or the particular technology used to transport those communications. The very act of transporting communication over a digital network – so long as there is no change in form or content – does not change the nature of the communication or the transmissions from a telecommunications to an information service. Indeed, were this the case, then many telephone calls now made over standard telephones but routed over packet networks for at least part of the transmission, would already fall outside the scope of Title II.

The approach that we ask the Commission to adopt is consistent with the approach adopted by the Commission in its Section 255 rules. Those rules acknowledge, for example, that although certain equipment may be used for both telecommunications and non-telecommunications functions, such equipment is covered under Section 255 to the extent it is used to originate, route or terminate telecommunications.⁵ The mere fact that such equipment has the potential to be used for other functions, including information service functions, does not remove it entirely from the reach of Section 255.

Should the Commission fail to cover even these very basic methods of communication, as our society migrates from traditional wireline telephone services to broadband Internet platforms, consumers with disabilities will find that the protections that were available to them under the more traditional platforms disappear because newer telecommunications services use a technology that the Commission has chosen to exempt from its regulations. The Commission itself acknowledges that “broadband technologies

⁴ *FCC Authorizes Recovery of Costs for New Technology for TRS Users*, Public Notice (April 18, 2002).

⁵ *In the Matter of Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934, as Enacted by the Telecommunications Act of 1996, Access to Telecommunications Service*,

may ultimately replace legacy narrowband networks.”⁶ Individuals with disabilities should not be penalized as we move from outdated to modern telecommunications technologies just because these newer technologies have other, more versatile uses as well. For purposes of accessibility, the Commission’s framework should not be tied to particular technologies, but rather to the functions and services that are provided. In this case both the functions and the service – direct communications carried from one end to another through a “dumb” pipe – constitute telecommunications services.

III. The Commission Has Authority Under Title I to Ensure that People with Disabilities Have Access to Broadband Access Services.

Even were the Commission to determine that telecommunications services are not part of the provision of broadband access services, it retains the necessary jurisdiction to ensure that these services are accessible to people with disabilities. In the NPRM, the Commission delved into the history of the Computer II decisions in a discussion of how certain services came to be classified as enhanced, and then later, information services. Although these services are not regulated under Title II, the NPRM explains that in the past, the Commission retained the authority to exercise jurisdiction over these services under Title I “should problems involving enhanced services arise.”⁷

This would not be the first time that the Commission used its ancillary jurisdiction to take steps that are otherwise consistent with the Commission’s statutory authority to act in the public interest. As the Commission states in its *Inquiry Concerning High Speed Access over Cable*, “[f]ederal courts have long recognized the Commission’s authority to promulgate regulations to effectuate the goals and accompanying provisions of the Act in

Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities, Report and Order and Further Notice of Inquiry, WT Dkt. No. 96-198, FCC 99-181 (re. Sept. 29, 1999) at ¶80.

⁶ NPRM at ¶13.

the absence of explicit regulatory authority, if the regulations are reasonably ancillary to existing Commission statutory authority.”⁸ The decision of one such court, the U.S. Court of Appeals for the D.C. Circuit, provided the basis upon which the Commission was able to assert its ancillary authority in its Section 255 proceeding. Specifically, in its review of the Commission’s Computer II ruling, the D.C. Circuit upheld the Commission’s assertion of ancillary jurisdiction over information services, concluding that “the Commission’s judgment on ‘how the public interest is best served is entitled to substantial judicial deference,’” and “must be upheld unless arbitrary or capricious.”⁹ The Commission relied in part upon this and other decisions of the D.C. Circuit,¹⁰ when, in its Section 255 proceeding, it determined that use of the term “telecommunications services” in the Communications Act did not bar coverage of services other than telecommunications services. The Commission’s Section 255 Order concluded that both interactive voice response systems and voice mail were so essential to the ability of persons with disabilities to effectively communicate, that the failure to require their accessibility would undermine Congress’ intent under Section 255. Similarly, here, a failure to require accessibility to broadband access services under Title I will effectively

⁷ NPRM at ¶39.

⁸ *In the Matter of Inquiry Concerning High Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities, Declaratory Ruling and Notice of Proposed Rulemaking*, GN Docket No. 00-185, CS Docket No. 02-52, FCC 02-77 (Mar. 15, 2002) at ¶75.

⁹ *In the Matter of Implementation of Sections 255 and 251(a)(2) of the Communications Act of 1934*, WT Docket. No. 96-198, FCC 99-181, Report and Order and Further Notice of Inquiry (July 14, 1999) at ¶94, citing to Computer and Communications Industry Association v. FCC, 693 F.2d 198, 213 (D.C. Cir. 1982), *cert. denied*, Louisiana Public Service Commission v. FCC, 461 U.S. 938 (1983).

¹⁰ In the Section 255 proceeding, the Commission also relied on the D.C. Circuit’s opinion in Mobile Communications Corp of America v. FCC, 77 F. 3d 1399 (D.C. Cir. 1996), *cert. denied*, Mobile Telecommunication Technologies Corp. V. FCC, 519 U.S. 823 (1996), in which the court disagreed that where a statute “limits a thing to be done in a particular mode, it includes the negative of any other mode.” *Section 255 Proceeding* at ¶105, citing Mobile, 77 F. 3d at 1404. The Mobile court noted that where Congress prohibits a particular conduct, there is sufficient basis to support administrative action designed “to eliminate a similar danger.” *Section 255 proceeding* at ¶105.

undermine the Commission’s goals both to “encourage the ubiquitous availability of broadband to all Americans”¹¹ and to uphold our nation’s policies to safeguard the accessibility interests of people with disabilities.

The NPRM in the instant proceeding goes on to explain that the Commission has declined to exercise its jurisdiction over information (enhanced) services in the past because it has always found the market for these services to have “effective competition.”¹² As we discuss more fully below, competitive market forces will not, on their own, provide the safeguards needed to ensure access by individuals with disabilities. We submit that the lack of such safeguards in the broadband industry is likely to cause significant problems for the disability community. Additionally, as our population ages, and the number of people with disabilities consequently increases, we run the risk that a significant portion of the older population may lose access to telecommunications. Indeed, if past experience offers any indication, it is more than likely that broadband access services may be developed with little regard for the accessibility needs of these populations. Given both Congress’s and the Commission’s paramount interest in preserving such access – as evidenced by innumerable federal access laws and regulations spanning the past two decades – it is incumbent upon the Commission to use its Title I authority to preserve the public’s interest in ensuring access to broadband services by people with disabilities.

IV. Market Forces are Insufficient to Protect Disability Interests

In this and other Commission proceedings designed to define the regulatory framework for broadband access services, the Commission has noted its interest in

¹¹ NPRM at ¶3.

¹² NPRM at ¶39.

fostering investment in and deployment of broadband services in a minimal regulatory environment. In determining the appropriate role that regulation, if any, can play, the Commission has consistently turned to the dynamics of the broadband market.¹³ For example, in the instant NPRM, the Commission notes that the broadband services market is different than the market for analog telephone services because intermodal competition exists among broadband platforms. Specifically, cable, satellite, DSL and other landline and mobile broadband competitors all vie for a piece of the broadband market.¹⁴ The Commission asks whether competition amongst these multiple platforms is sufficient to protect the interests of consumers absent governmental regulation.

The RERC-TA submits that broadband competition is not sufficient to protect the interests of people with disabilities. Historically, market forces alone have been insufficient to ensure the existence and availability of accessible products and services. Because the market of individuals with disabilities is so varied (i.e., there are multiple types of disabilities), the market is fragmented, and too small to influence marketing decisions. It was precisely this market failure which prompted Congress, on multiple occasions, to enact legislation that would ensure that people with disabilities would not be left behind as telecommunications technology moved forward. The Americans with Disabilities Act's requirement for relay services, the Hearing Aid Compatibility Act's requirement for compatible wireline phones, and other federal mandates for telecommunications service and product accessibility all reflect the recognition and understanding that regular market forces, alone, have not and will not bring about access

¹³ For example, in its proceeding on the provision of broadband by incumbent LECs, the Commission noted that its "regulatory response should be guided by a full understanding of the existing market dynamics for broadband services." ¶17, and examined the extent to which incumbent LECs are able to leverage their marketing power as a means of hurting competitors. ¶29-30.

needed for people with disabilities to lead independent and productive lives. That Congress understood the need for disability safeguards even amidst its effort to deregulate nearly the entire telecommunications industry is best reflected by the passage of Section 255 itself. Notwithstanding its deregulatory inclinations, Congress readily added to the Telecommunications Act Section 255 – a provision that imposed *new* mandates on the telecommunications industry, in the interest of ensuring that people with disabilities would receive much needed protections.

In its Second Report on high speed Internet access, the Commission acknowledged that market forces may not be enough to guaranteed timely access to broadband services for Americans with disabilities.¹⁵ That report identified persons with disabilities as a category of Americans “who are particularly vulnerable to not having access to advanced services.”¹⁶ Similarly, in its Third Report assessing the deployment of high speed services, the Commission acknowledged that individuals with disabilities may face “significant impediments” with respect to gaining access to broadband services.¹⁷ The Commission included the lack of accessible equipment, content and software among the many factors that may be impeding such access.

The failure of the market to safeguard the interests of people with disabilities has led the Commission itself to conclude on certain occasions that regulatory safeguards to protect the needs of this population must outweigh a competing interest in deregulation. For example, although, in November of 2000, the Commission revised its Part 68 rules to

¹⁴ NPRM at ¶60.

¹⁵ *Deployment of Advanced Telecommunications Capability to all Americans in a Reasonable and Timely Fashion, Second Report*, CC Dkt. No. 98-146, 15 FCC Rcd 20913 (2000) (*Second Report*) at ¶234.

¹⁶ *Id.*

¹⁷ *Deployment of Advanced Telecommunications Capability to all Americans in a Reasonable and Timely Fashion*, CC Dkt. No. 98-146, *Third Report*, FCC 02-33 (2002) (*Third Report*) at ¶103.

eliminate its technical criteria and oversight of customer premises equipment connected to the public switched telephone network, it retained the sections of Part 68 that pertain to disability access. The Commission explained that its Part 68 rules on hearing aid compatibility and volume control are “intended to ensure that individuals with hearing and speech disabilities have access to telecommunications services in a manner functionally equivalent to someone without such disabilities,” and that retention of these rules would “ensure that the Commission is able to continue monitoring and enforcing compliance with [the] requirements . . . directed by Congress in Section 255 of the Act.”¹⁸

V. Accessibility Issues Already Exist with Respect to Broadband Technologies.

Our concerns with the failure of market forces to safeguard accessibility for individuals with disabilities as our nation migrates to broadband technologies are not unsubstantiated. Accessibility problems already exist with respect to several of these technologies. For example, it is not uncommon for TTY text that is transmitted over IP telephony to be garbled at the receiving end. Moreover, although wireline phones have compatible flashing ring indicators that alert deaf persons as to the existence of an incoming call, at present, manufacturers typically do not incorporate technology that provides a corresponding means of notifying such individuals that they are receiving a call on a computer network or on digital PBXs without retrofitting to an analog connection. To the extent that the technology exists to provide these alerts, or to the extent that such technology is readily achievable, these devices should be made readily available to consumers who need them. Similarly, issues related to the intelligibility of

¹⁸ *In the Matter of 2000 Biennial Regulatory Review of Part 68 of the Commission's Rules and Regulations, Report and Order*, CC Docket No. 99-216, FCC 00-400 (Nov. 9, 2000) at ¶66.

speech over IP technologies are of concern for people who are hard of hearing. There is a trend in the telecommunications industry to use compression of speech as a means for achieving efficiency and cost savings. People who are hard of hearing, especially those with severe hearing loss, may find it more difficult to understand speech that has been greatly compressed. And if speech quality is lower with some IP telephony applications, the use of these applications could also present a problem for people who have a difficult time making their speech understood by others. This would include hearing people with speech disabilities, as well as people who are deaf or hard of hearing and who use voice carryover (VCO).¹⁹

Concerns have also been raised about the ability of individuals who are blind and visually impaired to access broadband services, such as IP telephony. Most notably, interfaces to these services are often provided through graphical interfaces which may not be accessible to people who are blind. Multi-media telecommunications that assign some functions and controls to the sense of vision and some to the sense of hearing, without providing redundancy in modes, pose new barriers to people with vision and/or hearing disabilities.

VI. Broadband Services Offer Significant Advantages for People with Disabilities

As the Commission has previously noted, “[t]he world of telecommunications is changing dramatically, with broadband services assuming an increasingly critical role in our economy and our everyday lives.”²⁰ The need to ensure that broadband access services are available and accessible to people with disabilities is evidenced by the

¹⁹ VCO allows an individual with speech, but with lessened hearing, to speak by phone directly to another party, and to receive text back through a TTY or a relay operator.

²⁰ *In the Matter of Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, Notice of Proposed Rulemaking, CC Dkt. No. 01-337, FCC 01-360 (Dec. 20, 2001) at ¶4.

extraordinary reach that broadband services will soon have in our society. In fact, broadband services are already evolving into both the information and communication system for our entire country. It is expected that these services will permeate our businesses, schools, homes and lives in the same way that electricity does today. They will extend to wired and wireless communication networks and will even operate over the standard power wiring in our homes and businesses.

If made accessible, broadband can offer significant benefits for individuals with disabilities. Among other things, broadband provides consumers with disabilities with the opportunity to choose from among various communication modes; thus users who can perform some functions but not others can choose the access mode best suited to their needs.

The following are a few examples of how broadband can be used as a transport platform to facilitate communications by people with disabilities:

- Voice traffic could include, as part of standard implementation, an open-standard two-way text protocol. This would enable any two parties who have screens and keyboards on end-user equipment to carry on both text and voice conversation. This protocol would permit direct communication among deaf and hearing people without the use of TTYs or relay services. TTYs have provided a reliable method of text communication, but they require the purchase of specialized equipment, are very slow, and do not allow users to interrupt each other while conversing. When additional people and businesses have access to broadband pipelines, the current population of TTY users will have greater opportunities to conduct direct text chat with people who do not have TTYs.
- Voice and text could easily be transmitted in a way that supports simultaneous voice and text. This would improve VCO and hearing carryover (HCO) services used by deaf, hard of hearing, and speech disabled individuals.²¹
- Video telephony transmissions can be transmitted with sufficient clarity to allow people who are deaf and use signing as their primary mode of communication, to communicate either with each other directly or through video relay services. The

²¹ HCO enables an individual with hearing, but with difficult-to-understand speech, to convey his or her part of the conversation in text and hear back the conversation conveyed by the other party.

ability to carry on telephone conversations via sign language over broadband access services will finally afford signing deaf people the opportunity to experience natural phone interactions that they have never been able to enjoy. In doing so, they will finally experience “functionally equivalent” telephone services as intended by Congress in Title IV of the Americans with Disabilities Act. For people who are hard of hearing and need to see the speaker (a sizeable portion of the elderly population), video can also offer the opportunity to read lips and see facial expressions. Finally, video can be useful to people who have speech disabilities but not enough motor skill to type; their speech could naturally be augmented by visual cues such as facial expressions, gestures, and use of communication aids.

- The ability to conference in more than one party on any broadband call can make it easier for calls to be assisted by a third party (interpreter, captioner, speech-to-speech assistant) on the same call.
- Individuals who rely on relay services can now use broadband to access relay centers via the Internet. The FCC’s ruling that IP relay is a reimbursable telecommunications relay service will only be beneficial to relay consumers to the extent that this service is readily accessible and easy to use.

In order to enable people with disabilities to benefit from broadband services in the above fashions, broadband service providers need to be sure that the hardware and software they install will not inadvertently distort or deny the above features. For example, broadband services that carry voice traffic need to be compatible with TTY text which is carried over these services. Alternatively, they need to enable the widespread use of products and implementation of standards that permit text chat among people with and without disabilities.²²

Attention also needs to be directed at ensuring that blind and visually impaired users of wireline broadband services have access at various stages of using broadband services – i.e., when submitting an application for such services, during installation, and when interfacing with these services once they have achieved a connection. Alternatives

²² The use of text chat would be greatly enhanced by widespread implementation and support of ITU Recommendation T. 140, a plain text chat protocol, in all digital communications environments.

to graphical icons and text, including audio output, are needed to offer functionally equivalent broadband services to these persons.

These and other accessibility measures are more likely to be readily achievable under Section 255 if they are adopted during the stages in which new broadband access services are designed and developed. Indeed, most of the above accessibility provisions can be incorporated during these early stages at reasonable costs, avoiding expensive retrofitting. Conversely, the failure to consider these access needs early in the design and development of broadband services may result in inaccessible services that will be burdensome and expensive for industry to fix later on.

VII. Broadband Access Service Providers Should Comply with the Accessibility Requirements of Section 251

The Commission also asks about the implications that an “information services” classification will have on the obligations of LECs to provide access to network elements under sections 251 and 252. While the issues that the NPRM focuses on in relation to Section 251 are not related, per se, to disability access, we remind the Commission that Section 251 does require telecommunications carriers not “to install network features, functions, or capabilities that do not comply with the guidelines and standards established pursuant to section 255.” Accordingly, to the extent that network features, functions, or capabilities may be installed for the provision of broadband access services, companies installing those features, functions, or capabilities should be required to ensure that these are in compliance with the accessibility mandates of Section 255.

VIII. Contributions for Universal Service and Telecommunications Relay Services Need to be Supported.

The NPRM notes that as traditional services migrate to broadband platforms, there may be implications for funding universal service programs. Specifically, the Commission seeks comment on how the classification of wireline broadband Internet access may impact its present system of assessments and contributions for universal service.

The Commission is correct to be concerned about sustaining universal service in a changing communications market. An issue not raised by the NPRM, but which is just as critical, is how telecommunications relay services (TRS) will be supported in this changing environment. Like universal service, carriers are required to contribute to the costs of providing TRS through assessments based on end-user revenue. The Commission notes that in the past, it has exercised its authority to collect contributions to the universal service fund from entities that are not considered telecommunications carriers. Specifically, the Commission states that it has required contributions to be made to the universal service fund both by entities that provide interstate telecommunications to end-users for a fee and payphone aggregators. The Commission's rationale for collecting these revenues has been that that these providers are similar to telecommunications carriers because they "have built their businesses . . . on access to the [public switched telephone network], provide telecommunications in competition with common carriers, and their non-common carrier status results solely from the manner in which they have chosen to structure their operations."

In the instant situation, the Commission should similarly exercise its authority to collect contributions for universal service and TRS from broadband access providers, whether or not these are classified as telecommunications providers. As reliance on

broadband Internet platforms grows, support from these entities will be critical for maintaining not only traditional TRS, but also newer, advanced types of telecommunications relay services that include video relay, speech-to-speech, and perhaps IP relay. As the Commission continues to examine how assessments and contributions will be made to the universal service fund in the future, it should consider as well the impact that its rulings on this issue will have on the financial support of our nation's relay services. Thus, both facilities-based broadband Internet access providers as well as facilities-based ISPs that do not provide any stand-alone telecommunications services should be required to contribute to the universal service and TRS funds.

IX. Conclusion

In its NPRM, the Commission sets forth several objectives by which it seeks to guide its broadband policy. Among these is the goal to take actions that “encourage and accelerate the deployment of broadband for all Americans.” We agree that the increased deployment and availability of broadband will bring huge benefits to all Americans. But these benefits will reach Americans with disabilities only if measures are in place to ensure that broadband technologies have accessible designs. The Commission is tasked with ensuring that our nation's telecommunications policies are created in the public interest. In determining the appropriate regulatory framework for broadband Internet access services provided over the traditional telephone infrastructure – as well as over

other platforms – the RERC-TA submits that the Commission should carefully consider how its rulings may affect access to these services by people with disabilities.

Respectfully Submitted,

Karen Peltz Strauss, Policy Consultant
Gregg C. Vanderheiden, Co-Principal Investigator
Judith E. Harkins, Co-Principal Investigator

RERC on Telecommunications Access
C/o Gallaudet University
800 Florida Avenue, NE
Washington, DC 20002

May 3, 2002